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ANNUAL REPORT

— OF THE —

BOARD OF HEALTH

— OF THE —

CITY OF PITTSBURGH,

FOR THE YEAR

1877.

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BOARD OF HEALTH.

1877.

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J. D. THOMAS,
JAMES McCANN,
J. P. McCORD,
JARED M. BRUSH,
W. W. LOGAN.

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CROSBY GRAY, Health Officer.
W. SNIVELY, Physician and Registrar.
H. H. McCORMICK, Attorney.
T. W. LINDSAY, Meat Inspector.
*J. GEARY LOGAN, Registration Clerk.
THOS. FORDING, }
J. J. LAWSON, } Sanitary Inspectors.
†GEO. W. BRACY, }

*Vice J. G. Little, resigned October 1.

†Vice J. G. Hunter, resigned October 1.

COMMITTEES.

1877.

ENT.
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J. D. THOMAS,
JAMES McCANN, } *Finance.*

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J. D. THOMAS,
A. ARTHURS, } *Printing.*

Office of the Board of Health,

MUNICIPAL HALL,

PITTSBURGH, January, 1878.

To the Select and Common Councils of the City of Pittsburgh:

GENTLEMEN:—The Board of Health herewith respectfully presents for your information the annexed Annual Reports of their Treasurer, Health Officer, Registrar, Registration Clerk, Meat Inspector, and Attorney, which contain a brief account of the operations of said Board during the year 1877.

Respectfully submitted,

J. F. SLAGLE,

President.

W. J. ASDALE,

Secretary.

HEALTH OFFICER'S REPORT.

OFFICE OF THE BOARD OF HEALTH,
PITTSBURGH, January, 1878.

To the Board of Health :

GENTLEMEN :—I have the honor to submit the following brief report of the operations of this department during the year 1877.

GENERAL SANITARY CONDITION.

The sanitary condition of the city did not compare favorably with that of the three previous years, owing principally to the prevalence of small-pox and diphtheria.

It certainly would have been much worse, however, had not your Board, although still laboring under the same difficulties which have existed for a number of years, viz.: a lack of sufficient force and funds, used all the efforts in their power to prevent the spread of these diseases. The total number of deaths occurring during the year was 3408; being an increase over that of the previous year of 512. Of these, 269 were from small-pox, and 401 from diphtheria.

The causes which led to the outbreak of diphtheria were probably beyond the reach of this Board, at least as at present conducted. From the most reliable information and data attainable, it was due in great measure to improper and insufficient drainage and sewerage. This subject is not considered of sufficient importance by the public, or by the city authorities. Although theoretically it is a subject which has engaged the attention of the Board of Health for a number of years, yet practically it has done, and could do, but little more than recommend. These recommendations, I regret to say, were not always heeded, much to the detriment of the public health.

The causes which led to the prevalence of small-pox were the facts of its being principally confined to a class who, through either poverty, ignorance, prejudice, or all combined, would not be governed by the dictates of humanity, or profit by the experience of scores of years. Neglect of vaccination and the difficulty in completely isolating those afflicted, were the principal causes of swelling the mortality of the year from that source.

SANITARY INSPECTION.

The system of inspection adopted some years ago, and found to be fruitful of such desirable results, was adhered to during the past year.

Three permanent Inspectors were in continuous service during the year, and two assistants until October 1st, when it became necessary to curtail the expenses of the Board, and they were discharged, at a time, too, when their services were invaluable. The work performed by these laborious and pains-taking servants is shown in the following statement, which has been compiled from their daily and monthly reports.

STATEMENT.

Showing the Number and Character of the Nuisances visited and abated during the year 1877, upon notice from this office.

DESCRIPTION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Alleys, filthy,.....	15	25	30	40	54	53	70	74	44	42	27	29	503
Courts ".....	...	...	3	6	3	8	8	3	2	...	...	4	37
Cellars, ".....	...	4	19	13	17	18	21	25	11	6	3	...	137
Dead animals removed,.....	53	88	56	169	110	108	90	94	70	54	57	37	986
Defective drainage,.....	...	1	3	2	1	10	15	9	12	6	3	...	62
Drain pipes leaking,.....	...	2	3	2	4	3	6	7	2	...	...	2	31
Gutters filthy,.....	6	13	21	25	49	37	56	57	49	11	4	4	332
Gutters obstructed,.....	3	2	8	12	3	14	15	9	17	3	1	6	93
Garbage thrown on streets,.....	17	25	41	67	69	53	66	88	66	74	47	25	638
Garbage thrown on vacant lots,.....	2	20	61	47	44	39	43	44	34	28	16	9	387
Houses, filthy,.....	2	1	4	7	1	2	5	4	4	1	...	3	34
Houses, disinfected.....	86	64	68	42	68	76	28	79	77	83	100	103	874
Houses, damp,.....	...	1	...	...	6	4	...	2	2	2	...	...	17
Hog-pens, filthy,.....	1	1	4	3	5	17	17	14	12	5	7	1	87
Infected bedding, &c., destroyed,.....	20	18	48	34	43	64	34	43	62	81	78	110	635
Manure heaps removed,.....	2	18	14	25	31	31	34	27	24	10	9	11	236
Manure boxes on street,.....	3	...	1	10	3	13	9	13	5	3	4	2	66
Offal removed,.....	...	...	...	6	2	3	2	...	1	2	1	...	17
Ponds of water,.....	...	2	8	8	3	7	16	6	4	6	4	3	67
Privies, dangerous,.....	...	...	1	2	7	3	1	2	1	2	1	1	21
Privies, filthy,.....	4	24	23	15	13	23	40	32	24	11	4	6	219
Privy-wells, full,.....	14	39	53	90	119	106	140	134	74	90	54	47	960
Privy-wells, leaking,.....	2	7	11	12	17	20	33	21	...	18	4	6	151
Privy-wells, foul,.....	...	16	7	2	20	78	72	81	26	4	...	5	311
Roofs leaking,.....	...	1	...	...	1	...	1	...	1	...	...	...	6
Streets, filthy,.....	...	1	2	6	16	6	3	12	5	1	2	1	56
Slaughter-houses, filthy,.....	...	...	2	8	5	6	9	6	1	2	2	1	42
Stables, filthy,.....	...	7	4	14	23	19	29	24	16	9	7	7	159
Sewers obstructed,.....	...	2	8	...	10	8	11	11	14	4	2	1	71
Vacant lots filthy,.....	...	3	6	17	12	24	18	13	13	1	1	4	112
Water in cellars,.....	1	12	19	16	3	15	26	21	14	8	4	10	149
Water-closets, foul,.....	...	...	...	...	...	1	...	2	...	...	1	...	4
Water-closets leaking,.....	1	1	2	...	...	4	2	1	...	...	...	...	11
Water-courses, filthy,.....	...	...	...	2	3	18	12	5	...	9	9	...	58
Water-courses, obstructed,.....	4	...	3	1	3	4	12	...	...	...	2	...	29
Yards, filthy,.....	4	25	78	134	59	65	65	119	69	30	20	45	713
Miscellaneous, (verbal notices,).....	11	53	56	88	104	67	85	56	61	11	16	7	615
Total,.....	251	475	669	925	930	1028	1093	1139	816	618	490	490	8924
Cases of Small-pox visited,.....	154	87	95	62	111	104	49	104	109	114	166	172	1327

As will be observed by the preceding statement, the number of nuisances visited and abated was 8,924. This was an increase over that of the previous year of 4430, or nearly one-half, and is a gratifying commentary upon the efficiency of the inspection corps. Complaints have frequently been made by persons who evidently do not understand the duties imposed upon the Inspectors, or appreciate the importance and necessity of sanitary inspection, of the expense incurred by this system, and who claim that the work, if necessary at all, could be better performed and at less expense by the members of the police force. To such I would say, that the duties of the police are sufficiently onerous and varied, if properly performed, to occupy their entire time, and all that could be expected of them would be to report such isolated cases of infringement of the health laws as might come under their observation, or be reported to them by citizens. (As to complaints of nuisances, it may be interesting to such persons to know that of the whole number of nuisances visited and abated during the year, less than 1000 were complained of at this office, the balance having been found by the Inspectors while making their tours for that purpose.) Aside from this but little could be done by them, as their duties do not often call them to the localities where disease producing causes most abound. More than this, sanitary inspection must be regarded as a specialty, and can be performed successfully only by persons who have by constant study and experience fitted themselves for that duty. Its great importance should forever prevent its being placed in the hands of inexperienced persons. Besides, the plan proposed has been tried in many other cities, and is almost universally condemned as being impracticable, for the reasons above stated, and on account of the police engaged in the performance of that duty not being under the exclusive control of the sanitary authorities.

STATEMENT

Showing the number of Cesspools emptied during the year 1877 upon permits issued from this office.

Months.	Permits issued.
January,	28
February,	55
March,	64
April,	140
May,	171
June,	120
July,	144
August,	131
September,	75
October,	87
November,	55
December,	35
Total,	1,125

As will be observed from the foregoing statement, the number of cesspools emptied during the year was 1125, being a decrease from that of the previous year of 44.

The reprehensible practice of "tapping" privies into sinks or wells constructed near them for the purpose is still resorted to in many cases. This should not be done, as scarcely anything can be more fruitful of disease and death in the future than this mode of disposal. Aside from this it is a clear evasion of the law.

LEGAL PROCEEDINGS.

In 28 instances, during the year, it became necessary to institute legal proceedings against persons for violation of the health laws. In all cases it was resorted to only after repeated warnings had failed to have the desired effect. As showing the necessity and justice of such proceedings, it is only necessary to say that in but one case was judgment entered for the defendant.

SMALL-POX.

As I before remarked, this disease was quite prevalent during the year. 827 cases of small-pox and 543 of varioloid. were reported to this office, making a total of 1370. Of these 269 proved fatal. The cases of small-pox were principally confined to a class who have no faith in vaccination, and refuse to accept the immunity which it

undoubtedly affords. Great difficulty was also encountered in endeavoring to isolate the cases as they occurred, as this class is imbued more than any other with the idea that their houses are their castles, and that in this land of liberty they have a perfect right to do with their own as they may see fit. I cannot better state the situation in this respect than by quoting the language of Dr. Joseph Holt, of the Board of Health of New Orleans, as follows:

"In the lower strata of society are naturally associated the conditions of life favoring pestilence, viz: ignorance, slothfulness, filth, and that fatalism which declares, 'if it is God's will for us to have a disease we will, and if it is not His will we will not have it.' In hygiene, as in religion, credulity and superstition bear a direct relation to ignorance, accumulating as the scale descends, until the absurdities of popular belief command our special wonder. We learn as a dogma of faith that to get vaccinated is to tempt the Lord; and are told that to be vaccinated during the prevalence of small-pox invites the disease and intensifies its dangers. Unfortunately too, with the lower class there is an obliviousness to fear of this pestilence. They regard one of their number covered with the loathsome eruption with the same complaisance in which the educated look upon varicella. * * * * *

There is a point beyond which personal liberty becomes unwarrantable license, and no individual has a right to spread a pestilence any more than he has to spread a fire."

In every case the houses in which the disease was found were placarded as required by the law, but did not prevent the commingling for which this portion of the community is famous.

The following statement shows the number of cases of small-pox and varioloid reported to this office during the year 1877 from each ward :

WARDS.	Small-pox.	Varioloid.	Total.
First,	27	8	35
Second,	9	3	12
Third,	16	13	29
Fourth,	16	10	26
Fifth,	11	10	21
Sixth,	25	16	41
Seventh,	11	6	17
Eighth,	23	16	39
Ninth,	42	26	68
Tenth,	31	30	61
Eleventh,	22	15	37
Twelfth,	50	28	78
Thirteenth,	19	18	37
Fourteenth,	17	18	35
Fifteenth,	36	29	65
Sixteenth,	22	15	37
Seventeenth,	51	36	87
Eighteenth,	8	4	12
Nineteenth,	2	1	3
Twentieth,	2	2	4
Twenty-first,	3	5	8
Twenty-second, . . . . .	..	..	..
Twenty-third,	1	6	7
Twenty-fourth,	10	8	18
Twenty-fifth,	10	6	16
Twenty-sixth,	83	65	148
Twenty-seventh,	72	28	100
Twenty-eighth,	53	30	83
Twenty-ninth,	100	34	134
Thirtieth,	19	24	42
Thirty-first,	4	10	14
Thirty-second,	7	9	16
Thirty-third,	3	7	10
Thirty-fourth,	4	1	5
Thirty-fifth, . . . . .	..	..	..
Thirty-sixth,	1	1	2
Total, City Wards,	810	538	1,348
Young Men's Home,	8	2	10
Orphan Asylum,	1	..	1
Out of City, (treated in Hospitals,)	8	3	11
Total,	827	543	1,370

The following statement shows the number of cases of small-pox and varioloid reported, together with the deaths, during each month of the year 1877 :

MONTHS.	NO. OF CASES REPORTED.			DEATHS.
	Total.	Varioloid.	Small-pox.	
January,	155	55	100	43
February,	96	42	54	18
March,	103	32	71	11
April,	66	31	35	13
May,	101	34	67	15
June,	108	44	64	13
July,	46	19	27	12
August,	106	40	66	29
September,	129	63	66	26
October,	122	43	79	30
November,	167	62	105	29
December,	174	78	96	30
Total,	1,370	543	827	269

VACCINATION.

In my report for 1876 I mentioned the fact that the Board had provided gratuitous vaccination for all those who were unable to pay for the same. This was continued during the greater part of the past year. Under that arrangement 1383 gratuitous vaccinations were performed, of which 737 were performed at this office, and the balance by the district vaccine physicians.

These were all performed with the same care as though the persons had paid for it, and only genuine bovine or cow-pox virus was used. Of the above fully two-thirds were persons who had never before been vaccinated.

This good work was carried on until October 1st, when it became apparent that the funds of the Board would not be sufficient to meet the current expenses, consequently it became necessary to dispense with the service of the vaccine physicians, which the Board was very loth to do. Subsequently the increase of the disease becoming so apparent, especially in the south side wards, the Board concluded to again attempt to place within the reach of the indigent public this great boon. Consequently, at a meeting of the Board, held December 6th, Dr. Asdale offered the following:

"WHEREAS, the prevalence of small-pox in the city is so great that the utmost vigilance becomes necessary to avert a most extensive and destructive epidemic, be it

"*Resolved*, That the following named physicians are hereby appointed as vaccine physicians for the south side wards." * * *

"*Resolved*, That the physicians accepting this appointment be required to perform vaccinations as under the rules of this Board heretofore provided, and shall proceed without delay to carefully canvas each his respective district, giving immediate attention to those localities where small-pox is most prevalent, and prosecute the said duty, visiting continuously from house to house, until it shall be ascertained that no unprotected person remains."

Knowing that it would not be possible to meet the additional expense with the appropriation then on hand, and wishing to place the responsibility of failure where it should belong, a resolution was adopted providing that the foregoing appointments should only be made in the event of city councils making a sufficient appropriation for that purpose. A statement of the case was sent to councils, and by them referred to the finance committee, who decided that it was impossible to grant the request. So the matter was allowed to rest.

DIPHTHERIA.

Only isolated cases were reported during the first six months, but it prevailed extensively during the last half of the year. 900 cases were reported to this office, of which number 401 proved fatal.

The following statement shows the number of cases of diphtheria reported to this office during each month of the year 1877:

January,	3
February,	4
March,	9
April,	3
May,	5
June,	0
July,	20
August,	92
September,	215
October,	267
November,	154
December,	128
Total,	900

Of this number 401 died. This proves either that the disease was unusually fatal, or that many cases were not reported. The latter, I am satisfied, is the true solution, as quite a number of physicians do not regard diphtheria as coming under the provisions

of the Contagious Disease Act. If all cases were promptly reported the Board would thereby be greatly assisted in preventing the spread of the disease by ascertaining the local causes which tend to propagate it, and the adoption and enforcement of the necessary sanitary measures.

The following statement shows the cases of diphtheria reported from each ward to this office during the year :

First,	1
Second,	2
Third,	18
Fourth,	5
Fifth,	5
Sixth,	7
Seventh, . . . . .	..
Eighth, . . . . .	..
Ninth,	13
Tenth,	3
Eleventh,	10
Twelfth,	18
Thirteenth,	9
Fourteenth,	26
Fifteenth,	8
Sixteenth,	5
Seventeenth,	9
Eighteenth,	5
Nineteenth,	5
Twentieth,	6
Twenty-first, . . . . .	..
Twenty-second,	1
Twenty-third,	2
Twenty-fourth,	46
Twenty-fifth,	86
Twenty-sixth,	180
Twenty-seventh,	103
Twenty-eighth,	106
Twenty-ninth,	93
Thirtieth,	50
Thirty-first,	46
Thirty-second,	25
Thirty-third,	6
Thirty-fourth,	1
Thirty-fifth, . . . . .	..
Thirty-sixth, . . . . .	..
Total,	900

The causes which most contributed to the prevalence of diphtheria undoubtedly were lack of proper drainage, faulty receptacles for night-soil, and badly constructed sewers and sewer connections.

Almost the first cases of the disease which occurred, were in the Twenty-sixth ward, in the immediate vicinity of the Washington street sewer. This gave rise to inquiry, when it was discovered that many of the private connections with said sewer were made without proper "traps" to prevent the return of gases—that the street "drops" were without traps, thus allowing the gases to escape without hindrance at every corner, and also that the sewer itself was partially filled for a considerable portion of its length with a semi-solid mass of filth and offal. Its condition was promptly reported by the Inspector of the district, who, together with Dr. J. D. Thomas, had given it a careful inspection.

In this, as well as many other cases, all the Board could do was to direct the attention of the City Councils to the fact and await their action. At a meeting of the Board, held August 29th, Dr. Thomas offered the following preamble and resolutions, which were adopted:

"WHEREAS, The Washington street sewer, South Side, is being used for the purpose of draining the cesspools between that street and the hill, as well as those located on the line of said street; and

"WHEREAS, This material has accumulated until it is from fourteen inches to three feet deep, forming a semi-solid mass which cannot be removed by water; and

"WHEREAS, The gases arising from this sewer are being poured out through the 'drops' at every crossing; said 'drops' opening into the sewer direct, without any intervening 'traps,' thereby so contaminating the atmosphere of that portion of the city that it is absolutely unfit to be respired by human beings, as the number of 'innocents' being slaughtered in that locality will attest; therefore,

"Resolved, That this Board request City Councils to instruct the Street Commissioner of the district to have said sewer cleaned at the earliest possible date; and that some one of the modern appliances for the prevention of the return of 'gases' be attached to each and every 'drop.'"

On September 10th I presented the foregoing to Councils, and was by them referred to the Street Committee, which in turn referred it to the Commissioner of the district for an estimate of the probable cost of cleaning the sewer. After considerable delay it was at last accomplished, but not until the disease had played sad havoc among the residents of that locality, and spread to other portions of the city.

Another undoubted cause of the prevalence of the disease, was the fact that it was regarded by many as not being infectious, and

consequently proper care in reference to isolation and disinfection was not taken. A fruitful source of contagion in cases of death from such diseases is the practice of having large funerals. The Board should have the authority, as in many other cities, of regulating this matter.

SANITARY IMPROVEMENTS.

During the summer, the subject of the proper disposal of night-soil, sewerage, &c., was referred to the Sanitary Committee, who devoted considerable time to an investigation of the subject, and at the meeting of September 28th, presented the following valuable report :

To the President and Members of the Board of Health :

GENTLEMEN :—The disposal of sewage and cesspool contents is a question of grave interest to all populous communities.

As your Committee, acting under your instructions, have given the subject some consideration, we desire to direct your attention to certain facts connected therewith.

Experience has shown that these accumulations cannot be disposed of by any method, and become entirely satisfactory from a sanitary view. Complete and speedy removal, however, is essential to health. To effect this, certainly no method known is so satisfactory as an abundant water supply, used in connection with a complete system of well devised and skilfully constructed sewers, carrying everything to a safe distance.

The city of Pittsburgh, although naturally well situated in the greater part for drainage by sewers, is unfortunately but very poorly provided for in that respect. Through blindness to sanitary precautions—certainly not through parsimony in expenditures—our excellent natural site has not been taken advantage of and improved as it deserves. The sewers which have been constructed are not only few in number, but almost without exception entirely inadequate to the purpose of their design. This is especially the case in the South Side wards.

A city provided with sewers of sufficient capacity, and of proper grade, and having an abundant supply of water for flushing purposes, and situated upon a stream of sufficient dimensions and velocity, may admit into its sewers anything considered proper and removable by water carriage.

Of all forms of filth, the most dangerous, as well as the most offensive and common, is human excrement. Repeated observations and investigations have demonstrated beyond cavil that severe and extensive epidemics of typhoid fever have originated through the emanations from typhoid excreta, and no doubt exists in the minds of your Committee that the present epidemic of diphtheria prevailing in the South Side wards of this city is mainly owing to the faulty disposition of night-soil. Fecal matter deposited in sewers not having sufficient fall to secure drainage, and without sufficient water to carry the matter instantly and completely away, is surely pestilential. Not less terrible as pest breeders are most excrement receptacles. The only proper way to construct a cesspool is to make it as tight as possible, so that it cannot pollute the soil without overflowing. Every privy-well having pervious walls must pollute the earth for many feet around it. In time this soil is saturated from the ooze, and then it

begins to give off its deadly effluvia, and besides the gaseous poison in the air, every spring or well in the vicinity holds the same elements in solution in its waters. Literally then "is there death in the cup."

Next in importance to the manner of construction of cesspools, is the question of their emptying. Where the water supply is plenty, and sewers of proper grade and of sufficient depth and capacity can be reached, this will be in every way to be considered the best plan that can be adopted. Water is the great purifier, and until something better is known, we must continue to use our rivers to purge our city of its filth. At a low calculation there are five thousand privy-wells in this city, most of which are unconnected with sewers and require occasional cleaning.

Our laws provide that this shall be done in a careful manner, and that the material shall be removed in air-tight vessels or carts to the place of deposit. In regard to the method of dumping this material, your committee are of the opinion that some other than the plan now in use should be provided. A visit to the locality of the "Point," in accordance with your instructions, proves that just cause for complaint exists there. The shore of the Allegheny river, at the foot of the wharf and just above the lower bridge, is in an abominable state, being covered with night-soil, brick bats, old tin-ware, iron hoops, hoop-skirts, etc., etc. This accumulation takes place gradually, and must, while the present arrangement continues, always contribute to make this a locality to be shunned, not only by the traveler, but by tradesmen and manufacturers, who would, under different circumstances, occupy this part of the wharf, were it improved, for shipping, and the ground adjoining with factories and business places. On account of the intolerable stench, business is no doubt seriously hindered in this neighborhood, saying nothing of the pernicious effect of this poison on the health of those compelled to live there.

We do, therefore, submit for your consideration the following recommendations:

First. That the Board of Health do erect a dump-house at the "Point;" the same to be connected by means of pipes of sufficient size, with deep water in the channel of the river, and to be operated under the authority of the Board. That water facilities being provided the pipes shall be flushed whenever night-soil is deposited therein, and the solid and insoluble matter shall, after being washed, be removed to such final place of deposit as the Board may designate.

Second. That the Board of Health do again seek to impress upon city councils the importance of the improvement of the Allegheny wharf at the "Point;" and, again, recommend that it be paved to low water line; and further improved by the driving of a line of "piles" at said line, to extend from the "Point" to a point opposite Second street, the effect of which would be to deepen the channel of the river.

Third. That the Board of Health do again recommend to councils the necessity for the construction of a sewer or box drain from the mouth of Second street to the Allegheny river; also for the extension of the Twentieth street, (south side,) sewer to low water line.

Fourth. That the Board petition city councils to establish by ordinance, that no sewer shall be constructed, altered, or improved, unless with the recommendation of the Board of Health.

Fifth. That the Board require that no privy-well shall be constructed, except such as shall be upon permit issued by the Board, and in accordance with the law.

Sixth. We recommend, finally, that under the directions of the Inspector of the district property owners in any infected locality be required to thoroughly disinfect their premises as far as may be possible.

* * * * *

Respectfully submitted,

W. J. ASDALE,
J. P. McCORD,
T. P. GRAHAM,
JARED M. BRUSH,
W. W. LOGAN,

Sanitary Committee.

At a subsequent meeting of the Board, the various recommendations were considered, when the first was referred back to the committee, with instructions to prepare plans, and estimate of cost. The second, third and fourth were adopted, and copies ordered to be presented to councils, and the fifth and sixth adopted.

At the following meeting, the sanitary committee reported that about \$2,000 would be required to construct a proper dump-house, with the necessary fixtures, and the finance committee was directed to include that sum in their estimate of expenditures for the ensuing year.

REGISTRATION DEPARTMENT.

During the year 1877, there were 4,215 births, 1,110 marriages and 3,408 deaths registered in this department.

The importance of registration is pretty generally acknowledged by all intelligent citizens everywhere. It is intended to be a *record* of such birth, marriage, or death, and upon it in many cases depends the proper settlement of estates, and many other matters, which are of great importance to the public, aside from that attached to it when viewed from a sanitary standpoint.

In order to properly serve these important purposes, however, it must be both complete and correct. These necessary requisites depend entirely upon the care and diligence of those whose duty it is under the law to make such returns. While in most cases a proper appreciation of this responsibility is realized, yet I regret to say that there are a few persons, who, through carelessness and apparent lack of interest in the subject, do not make either prompt or correct returns, and who seem to think that the only object of registration is to ascertain the number of births, marriages and deaths which occur in the city, and when they have simply made such return, whether correct or not, their duty is performed. Nothing could be more erroneous.

This action upon their part necessitates the frequent return of the certificates to the maker for correction, which adds greatly, and unnecessarily, to the already arduous duties of this department. It is to be hoped that the persons referred to will realize the grave responsibility resting upon them, and hereafter exercise proper care. If it were possible to have it done, all such returns should be accompanied by an affidavit as to their correctness.

As is well known to the Board, the work of this department is considerably behind, and it is almost impossible for the single clerk now employed to keep it up. I would, therefore, recommend the employment of an additional clerk for a short time, or the giving of the delayed work out by contract.

For further information relative to the work of registration, during the year, I would refer you to the accompanying valuable and interesting reports of the Registrar, and Registration Clerk.

STATEMENT

Showing the Receipts of the Office during the fiscal year ending January 31st, 1878.

1877. MONTHS.	Received from Permits.	Received from Fines, &c.	Received for Care of Patients in Hospital.	Total Receipts.
February,	\$ 27 50	. . .	. . .	\$ 27 50
March,	32 00	. . .	10 00	42 00
April,	70 00	5 00	. . .	75 00
May,	85 50	. . .	20 00	105 50
June,	240 00	. . .	35 00	275 00
July,	288 00	19 00	. . .	307 00
August,	262 00	. . .	5 00	267 00
September,	150 00	30 00	25 00	205 00
October,	43 50	. . .	10 00	53 50
November,	27 50	20 00	45 00	92 50
December,	17 50	15 00	30 00	62 50
January, (1878,)	19 50	. . .	. . .	19 50
Total,	\$1,263 00	\$89 00	\$180 00	\$1,532 00

The receipts of the office during the year amounted to \$1,532.00, being a decrease from those of the previous year of \$31.75.

Accompanying this report I have the honor to submit those of the several Sanitary Inspectors, which contain much interesting and valuable information.

Respectfully submitted,

CROSBY GRAY,
Health Officer.

FIRST SANITARY INSPECTION DISTRICT.

PITTSBURGH, January, 1878.

CROSBY GRAY, *Health Officer*:

SIR: I assumed the duties of Sanitary Inspector of the First Sanitary District on the first of October of the past year, having been elected to fill the vacancy caused by the resignation of Mr. James G. Hunter (whose labors were materially reduced from February to October by the assistance of Mr. Frank C. O'Brien), and and have the honor to submit a report of the labor performed by my predecessor and myself for the year ending December 31st, 1877. This district comprises all that portion of the city between the Allegheny and Monongahela rivers west of a line beginning at the foot of Thirty-third street, along said street to Herron avenue, thence by Herron avenue to Centre avenue; along Centre avenue to Soho street; thence by Soho and Brady streets to the Monongahela river. It consists of the 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, and 12th wards, and portions of the 13th and 14th wards.

In presenting this report of the labors of the past year I have nothing of special importance to offer (in the matter of much needed sanitary improvements and reforms) over that of the report of previous years; for although there are a vast number of nuisances abated, many are of such a character that in a short time they become as bad as ever, in which case my attention has again been directed to them while making tours of inspection or upon complaint having been made at the office of the Board.

STATEMENT

Showing the number and character of the Nuisances abated in the First District during the year 1877.

Alleys, filthy,	157
Courts, "	19
Cellars, "	64
Dead animals removed,	524
Defective drainage,	14
Drain pipes, leaking,	25
Gutters, filthy,	130
Gutters, obstructed,	24
Garbage and filth thrown on streets,	142
Garbage and filth thrown on vacant lots,	27
Houses, filthy,	23
Houses disinfected,	425
Houses, damp,	5
Hog pens, filthy,	24
Infected bedding, &c., destroyed,	251
Manure heaps,	143
Manure boxes on street,	31
Offal removed,	2
Ponds of water,	17
Privies, dangerous,	11
Privies, filthy,	75
Privy wells, full,	418
Privy wells, leaking,	87
Privy wells, foul,	88
Roofs, leaking,	3
Streets, filthy,	25
Slaughter houses, filthy,	14
Stables, filthy,	70
Sewers, obstructed,	38
Vacant lots, filthy,	33
Water in cellars,	30
Water closets, foul,	4
Water closets, leaking,	10
Water courses, filthy,	15
Water courses, obstructed,	2
Yards, filthy,	282
Miscellaneous, verbal notices,	262
Total,	<u>3,514</u>
Cases of small-pox visited,	520

Respectfully submitted,

GEORGE W. BRACEY, JR.,
Sanitary Inspector, First District.

SECOND SANITARY INSPECTION DISTRICT.

PITTSBURGH, January, 1878.

CROSBY GRAY, *Health Officer* :

SIR : I have the honor to submit the following report for the Second Sanitary District during the year ending December 31st, 1877.

The district comprises all that portion of the city between the Allegheny and Monongahela rivers east of a line running from the foot of Thirty-third street to Centre avenue; thence by Centre avenue to Soho street, and thence by Soho and Brady streets to the Monongahela river, and includes portions of the 13th, 14th 15th and 16th wards, and all of the 17th, 18th, 19th, 20th, 21st, 22d and 23d wards.

I had the assistance of Mr. F. C. O'Brien from February until October. His duties were confined to the 15th, 16th, 17th and 18th wards.

The accompanying table shows the number and character of nuisances abated and number of cases of infectious disease visited.

The sanitary condition of the district is good. There has been less complaint made the last year than any year since I have been Inspector.

The small-pox has been principally confined to portions of the 16th and 17th wards, with a few isolated cases in other portions of the district.

I have no suggestion or recommendation in regard to remedying local deficiencies, that are practicable.

STATEMENT

Showing the number and character of the Nuisances abated in the Second District during the year 1877.

Alleys, filthy,	300
Courts, "	7
Cellars, "	16
Dead animals removed,	221
Defective drainage,	7
Drain pipes, leaking,	2
Gutters, filthy,	64
Gutters, obstructed,	26
Garbage and filth thrown on streets,	200
Garbage and filth thrown on vacant lots,	78
Houses, filthy,	8
Houses disinfected,	61
Houses, damp,	4
Hog pens, filthy,	36
Infected bedding, &c., destroyed,	63
Manure heaps,	69
Manure boxes on street,	30
Offal removed,	6
Ponds of water,	43
Privies, dangerous,	2
Privies, filthy,	20
Privy wells, full,	133
Privy wells, leaking,	8
Privy wells, foul,	32
Roofs, leaking,	1
Streets, filthy,	18
Slaughter houses, filthy,	15
Stables, filthy,	42
Sewers, obstructed,	19
Vacant lots, filthy,	18
Water in cellars,	52
Water closets, foul,	1
Water closets, leaking,	1
Water courses, filthy,	16
Water courses, obstructed,	11
Yards, filthy,	83
Miscellaneous, verbal notices,	132
Total,	<u>1,845</u>
Cases of small-pox visited,	228

Respectfully submitted,

J. J. LAWSON,
Sanitary Inspector, Second District.

THIRD SANITARY INSPECTION DISTRICT.

PITTSBURGH, January, 1878.

CROSBY GRAY, *Health Officer* :

SIR: In presenting this report of last year's labor, I have very little to offer in addition to my suggestions in former reports. My labors were materially reduced from February to October by the assistance of Mr. W. C. McCord as assistant Inspector.

This district consists of that portion of the city south of the Monongahela and Ohio rivers and includes the Twenty-fourth to the Thirty-sixth wards.

There has been an improvement in the general sanitary condition of the district during the past year.

The condition of the streets has been as good as could be expected, except Twenty-third, Twenty-eighth and Twenty-ninth streets, which are flat and have never been paved.

The sewerage of the district needs the attention of the Board. The 24th, 25th, 26th, 28th and 29th wards are flat and consequently poorly drained; hence the importance of a thorough system of sewerage. The population of the district being large, offers an additional reason why better facilities should be provided to get rid of its sewage.

STATEMENT

Showing the number and character of the Nuisances abated in the Third District during the year 1877.

Alleys, filthy,	48
Courts, "	7
Cellars, "	61
Dead animals removed,	242
Defective drainage,	41
Drain pipes, leaking,	4
Gutters, filthy,	125
Gutters, obstructed,	56
Garbage and filth thrown on streets,	296
Garbage and filth thrown on vacant lots,	284
Houses, filthy,	3
Houses, disinfected,	388
Houses, damp,	8
Hog pens, filthy,	29
Infected bedding, &c., destroyed,	321
Manure heaps,	24
Offal removed,	9
Ponds of water,	7
Privies, dangerous,	8
Privies, filthy,	122
Privy wells, full,	409
Privy wells, leaking,	58
Privy wells, foul,	191
Roofs, leaking,	2
Streets, filthy,	11
Slaughter houses, filthy,	13
Stables, filthy,	47
Sewers obstructed,	14
Vacant lots, filthy,	62
Water in cellars,	68
Water courses, filthy,	27
Water courses, obstructed,	16
Yards, filthy,	365
Miscellaneous, verbal notices,	222
Total,	3,588
Cases of Small-pox visited,	579

Respectfully submitted,

THOMAS FORDING,
Sanitary Inspector, Third District.

REPORT OF REGISTRAR

OF

VITAL STATISTICS.

OFFICE OF THE BOARD OF HEALTH,
PITTSBURGH, JANUARY, 1878.

To the Board of Health:

GENTLEMEN:—I have the honor to present the following report upon the Vital Statistics of the City of Pittsburgh, for the year ending December 31st, 1877:

Compared with the preceding four years, the figures show a slight decrease in the number of births and marriages, and a considerable increase in the death rate.

The annexed statement exhibits the number of births, marriages and deaths for the past five years.

YEARS.	Births.	Marriages.	Deaths.
1873,	5,175	1,782	3,519
1874,	5,084	1,533	3,381
1875,	4,930	1,192	2,957
1876,	4,264	1,118	2,896
1877,	4,215	1,110	3,408

Ninety-eight certificates of death were furnished by the Registrar during the year. These certificates relate to persons who died without a physician in attendance during their last illness, under circumstances which rendered investigation by the Coroner unnecessary.

The Registrar desires to express his obligations to the officials of the U. S. Signal service for meteorological reports.

FIRST, OR WINTER QUARTER OF 1877,**Twelve Weeks and Six Days, Ending Saturday, March 31.**

During this period there were registered 1,094 births, 254 marriages and 764 deaths.

METEOROLOGY.

The mean temperature of January was 28.1°. The maximum temperature (53°) occurred on the 31st, and the minimum (4°) on the 10th. Monthly range, 49°. Rain or snow fell upon seventeen days, to the amount of 2.99 inches. Prevailing wind, west. The mean reading of the barometer was 30.125 inches; the highest, 30.525 inches, on the 17th; and the lowest, 29.373 inches, on the 15th. Monthly range, 1.152 inches. The mean relative humidity was 76.2 per cent.

The mean temperature of February was 36.9°. The maximum temperature (66°) occurred on the 1st, and the minimum (15°) on the 13th. Rain or snow fell upon eight days, to the amount of 1.43 inches. Prevailing wind, north-west. The mean reading of the barometer was 30.107 inches; the highest, 30.712 inches, on the 13th, and the lowest, 29.565 inches, on the 23d. Monthly range, 1.147 inches. The mean relative humidity was 66.6 per cent.

The mean temperature of March was 35.7°. The maximum temperature (67°) occurred on the 23d, and the minimum (2°) on the 18th. Monthly range, 65°. Rain or snow fell upon seventeen days, to the amount of 5.31 inches. Prevailing wind, north-west. The mean reading of the barometer was 29.972 inches; the highest, 30.477 inches, on the 11th, and the lowest, 29.143 inches, on the 8th. Monthly range, 1.344 inches. The mean relative humidity was 70 per cent.

The mean temperature of the quarter was 33.6°. Highest temperature, 67°, March 23; lowest temperature, 2°, March 18. Range during quarter, 65°. Mean barometer, 30.068 inches; highest barometer, 30.712 inches, February 13; lowest barometer, 29.143 inches, March 8; range during quarter, 1.569 inches. Mean relative humidity, 70.9 per cent. Rain or snow fell upon 42 days, to the amount of 9.73 inches.

TABLE No. II.
Comparative Mortality of Winter Quarter.

	1877.	1876.	1875.	1874.	1873.
Small-pox,	72	20	11	..	19
Measles,	30	8	2	31	1
Scarlet fever,	24	30	69	61	11
Diphtheria,	16	15	12	10	11
Whooping cough,	10	5	13	12	9
Enteric fever,	8	25	30	45	25
Cerebro-spinal fever,	1	1	4	8	26
Erysipelas,	3	4	5	4	11
Puerperal diseases,	6	9	4	2	17
Diarrheal diseases,	12	10	32	19	17
Consumption,	80	93	100	82	77
Pneumonia,	81	52	102	104	60
Bronchitis and congestion of lungs, .	59	37	50	83	44
Croup,	18	7	9	8	4
Persons 70 years of age and over, .	61	51	63	43	50
Children under 5 years of age, . .	350	277	389	397	331
Total deaths from all causes, . . .	764	630	818	813	721

During this quarter 348 cases of small-pox and varioloid were reported; 49 cases of scarlet fever; 13 cases of typhoid fever, and 26 cases of diphtheria.

SECOND, OR SPRING QUARTER, OF 1877,

Thirteen Weeks, Ending Saturday, June 30th.

During this period there were registered 923 births, 321 marriages, and 657 deaths.

METEOROLOGY.

The mean temperature of April was 51.7°. The maximum temperature (80°) occurred on the 24th, and the minimum (25°) on the 3d. Monthly range, 55°. Rain or snow fell upon ten days, to the amount of 2.88 inches. Prevailing wind, north-west. The mean reading of the barometer was 29.935 inches; the highest, 30.405 inches, on the 22d, and the lowest, 29.306 inches, on the 19th. Monthly range, 1.099 inches. The mean relative humidity was 58.3 per cent.

The mean temperature of May was 60.1°. The maximum temperature (93°) occurred on the 19th, and the minimum (33°) on the 3d. Monthly range, 60°. Rain fell upon twelve days, to the amount of 1.66 inches. Prevailing wind, north-west. The mean reading of the barometer was 29.987 inches; the highest, 30.351 inches, on the 12th, and the lowest, 29.538 inches, on the 22d. Monthly range, 0.813 inches. The mean relative humidity was 59.1 per cent.

The mean temperature of June was 72.1°. The maximum temperature (90°) occurred on the 30th, and the minimum (47°) on the 10th. Monthly range, 43°. Rain fell upon thirteen days, to the amount of 3.54 inches. Prevailing wind, south-west. The mean reading of the barometer was 29.832 inches; the highest, 30.160 inches, on the 12th, and the lowest, 29.521 inches, on the 6th. Monthly range, 0.639 inches. The mean relative humidity was 66.5 per cent.

The mean temperature of the quarter was 61.3°; highest temperature, 93°, May 19th; lowest temperature, 25°, April 3d. Range during the quarter, 68°. Mean barometer, 29.918 inches; highest barometer, 30.405 inches, April 22d; lowest barometer, 29.306 inches, April 19th. Range during quarter, 1.099 inches. Mean relative humidity, 61.3 per cent. Rain or snow fell upon thirty-five days, to the amount of 8.08 inches.

TABLE No. IV.
Comparative Mortality of Spring Quarter.

	1877.	1876.	1875.	1874.	1873.
Small-pox,	41	27	10	..	6
Measles,	6	11	8	28	17
Scarlet fever,	23	23	54	89	23
Diphtheria,	8	13	6	9	9
Whooping cough,	51	2	18	13	16
Enteric fever,	12	21	16	10	65
Cerebro-spinal fever,	3	..	9	4	60
Erysipelas,	1	2	3	4	12
Puerperal diseases,	11	6	9	7	21
Diarrheal diseases,	19	40	62	34	67
Consumption,	88	100	98	103	88
Pneumonia	50	70	41	58	43
Bronchitis and congestion of lungs,	36	35	27	40	37
Croup,	7	1	2	2	1
Persons 70 years of age and over, .	49	33	41	41	53
Children under 5 years of age, . .	321	319	315	350	379
Total deaths from all causes, . . .	657	683	686	748	878

There were reported during this quarter 284 cases of small-pox and varioloid, 76 cases of scarlet fever, 31 cases of typhoid fever, and 19 cases of diphtheria.

THIRD, OR SUMMER QUARTER, OF 1877,**Thirteen Weeks, Ending Saturday, September 29th.**

During this period there were registered 1,149 births, 238 marriages, and 1,111 deaths.

METEOROLOGY.

The mean temperature of July was 75.4°. The maximum temperature (96°) occurred on the 27th, and the minimum (53°) on the 12th. Monthly range, 43°. Rain fell upon fifteen days, to the amount of 3.98 inches. Prevailing wind, north-west. The mean reading of the barometer was 29.911 inches; the highest, 30.217 inches, on the 24th, and the lowest, 29.565 inches, on the 18th. Monthly range, 0.652 inches. The mean relative humidity was 66.8 per cent.

The mean temperature of August was 72.9°. The maximum temperature (94°) occurred on the 28th, and the minimum (53°) on the 5th. Monthly range, 41°. Rain fell upon eleven days, to the amount of 2.10 inches. Prevailing wind, north-west. The mean reading of the barometer was 29.917 inches; the highest, 30.229 inches, on the 28th, and the lowest, 29.648 inches, on the 8th and 9th. Monthly range, 0.581 inches. The mean relative humidity was 66.5 per cent.

The mean temperature of September was 65.7°. The maximum temperature (87°) occurred on the 30th, and the minimum (42°) on the 22d. Monthly range, 45°. Rain fell upon eight days, to the amount of 1.90 inches. Prevailing wind, east. The mean reading of the barometer was 30.012 inches; the highest, 30.195 inches, on the 22d, and lowest, 29.755 inches, on the 2d. Monthly range, 0.440 inches. The mean relative humidity was 73 per cent.

The mean temperature of the quarter was 71.3°; highest temperature, 96°, July 27th; lowest temperature, 42°, September 22d; range during quarter, 54°. Mean barometer, 29.947 inches; highest barometer, 30.229 inches, August 28th; lowest barometer, 29.565 inches, July 18th. Range during quarter, 0.664 inches. Mean relative humidity, 68.8 per cent. Rain fell upon thirty-four days, to the amount of 7.98 inches.

TABLE No. VI.
Comparative Mortality of Summer Quarter.

	1877.	1876.	1875.	1874.	1873.
Small-pox,	67	18	1	..	..
Measles,	2.	7	4	9	19
Scarlet fever,	27	24	53	69	35
Diphtheria,	136	17	18	17	11
Whooping cough,	59	9	19	39	23
Enteric fever,	18	19	36	27	61
Cerebro spinal fever, . . . . .	..	..	5	3	14
Erysipelas,	2	5	4	4	2
Puerperal diseases,	9	7	6	2	6
Diarrheal diseases,	217	221	238	329	358
Consumption,	66	68	76	67	80
Pneumonia,	20	25	12	24	30
Bronchitis and congestion of lungs, .	16	15	16	23	25
Croup,	15	17	9	6	9
Persons 70 years of age and over, .	42	49	41	40	44
Children under 5 years of age, . .	682	595	545	672	725
Total deaths from all causes, . . .	1,111	949	889	1,069	1,172

There were reported during this quarter, 281 cases of small-pox and varioloid; 81 cases of scarlet fever; 42 cases of typhoid fever, and 342 cases of diphtheria.

FOURTH, OR AUTUMNAL QUARTER, OF 1877,**Thirteen Weeks and Two Days, Ending December 31st.**

During this period there were registered 1,049 births, 297 marriages, and 876 deaths.

METEOROLOGY.

The mean temperature of October was 56.8°. The maximum temperature (84°) occurred on the 2d, and the minimum (38°) on the 7th. Monthly range, 46°. Rain fell upon eleven days, to the amount of 2.76 inches. Prevailing wind, west. The mean reading of the barometer was 29.999 inches; the highest, 30.418 inches, on the 7th, and the lowest, 29.537 inches, on the 4th. Monthly range, 0.881 inches. The mean relative humidity was 70 per cent.

The mean temperature of November was 43.2°. The maximum temperature (65°) occurred on the 14th, and the minimum (14°) on the 30th. Monthly range, 51°. Rain or snow fell upon fourteen days, to the amount of 4.48 inches. Prevailing wind, west. The mean reading of the barometer was 30.056 inches; the highest, 30.471 inches, on the 6th, and the lowest, 29.220 inches, on the 2d. Monthly range, 1.251 inches. The mean relative humidity was 71.8 per cent.

The mean temperature of December was 43.2°. The maximum temperature (67°) occurred on the 10th, and the minimum (20°) on the 1st. Monthly range, 47°. Rain or snow fell upon ten days, to the amount of 1.69 inches. Prevailing wind, west. The mean reading of the barometer was 30.122 inches; the highest, 30.487 inches, on the 21st, and the lowest, 29.519 inches, on the 30th. Monthly range, 0.968 inches. The mean relative humidity was 74.1 per cent.

The mean temperature of the quarter was 47.7°. Highest temperature (84°) October 2d; lowest temperature (14°) November 30th. Range during quarter, 70°. Mean barometer, 30.059 inches; highest barometer, 30.487 inches, December 21st; lowest barometer, 29.220 inches, November 2d. Range during quarter, 1.267 inches. Mean relative humidity, 72 per cent. Rain or snow fell upon thirty-five days, to the amount of 8.93 inches.

TABLE No. VIII.
Comparative Mortality of Autumnal Quarter.

	1877.	1876.	1875.	1874.	1873.
Small-pox,	89	21	7	..	..
Measles,	1	11	1	2	10
Scarlet fever,	21	16	32	94	53
Diphtheria,	241	32	28	17	42
Whooping cough,	15	8	4	15	9
Enteric fever,	33	19	38	67	40
Cerebro-spinal fever, . . . . .	..	1	2	3	3
Erysipelas,	6	3	3	4	5
Puerperal diseases,	6	3	6	2	11
Diarrheal diseases,	19	16	26	46	34
Consumption,	69	83	71	79	81
Pneumonia,	33	62	43	45	55
Bronchitis and congestion of lungs,	18	17	24	26	44
Croup,	21	40	16	10	15
Persons 70 years of age and over,	52	44	30	26	49
Children under 5 years of age,	403	282	223	357	346
Total deaths from all causes,	876	634	564	751	748

There were reported during this quarter 457 cases of small-pox and varioloid, 51 cases of scarlet fever, 48 cases of typhoid fever, and 513 cases of diphtheria.

PRINCIPAL METEOROLOGICAL FEATURES OF THE YEAR.

The mean temperature of the year was 53.5°, being 1.5° higher than the average for the previous four years. The maximum temperature was 96° on July 27th; the minimum temperature was 4° on January 10th; making the annual range 92°. Rain or snow fell upon 146 days, to the amount of 34.72 inches, against an average of 37.76 inches for the previous four years. The greatest atmospheric pressure was 30.712 inches, on February 13th; the least, 29.143 inches, on March 8th; the mean being 30.005 inches. The mean annual humidity was 68.25 per cent.

TABLE No. IX.

Comparative Meteorological Statement.

Year.	BAROMETER.				THERMOMETER.				WIND.			RAINFALL.	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean.	Prevailing direction.	Highest velocity miles per hour.	Total number of miles.	Number of rainy days.	Total rainfall.
1873	30.760	29.190	1.570	29.994	94°	—7°	101°	54.2°	N.W.	36	51.914	171	40.70
1874	30.792	29.112	1.679	30.039	100°	4°	96°	52.5°	N.W.	36	57.570	140	39.30
1875	30.686	29.254	1.432	30.006	96°	—12°	107°	49.5°	N.W.	36	53.388	167	34.06
1876	30.767	29.157	1.610	29.993	101°	—6°	107°	51.9°	N.W.	40	59.065	210	37.01
1877	30.712	29.143	1.569	30.006	96°	4°	92°	53.5°	N.W.	30	50.929	146	34.72

CLASSIFICATION OF DEATHS.

Below is re-produced the table compiled last year with the addition of 1877.

It will be observed that, compared with previous years, there was a marked increase in the mortality of general diseases (A). This was due to the extensive prevalence during the year of small-pox and whooping cough, and during the latter part of the year of diphtheria.

TABLE No. X.

DEATHS FROM	1877.	1876.	1875.	1874.	1873.	5 Years' Average	5 Years' Aggregate.
General diseases, (A)	1,141	594	770	996	952	890.6	4,453
General diseases, (B)	471	508	500	525	461	493.0	2,465
LOCAL DISEASES.							
Diseases of the nervous system, .	339	369	316	393	475	378.4	1,892
Diseases of the circulatory system	75	100	102	106	109	98.4	492
Diseases of the respiratory system	425	436	429	498	432	444.0	2,220
Diseases of the digestive system,	392	389	358	292	316	349.4	1,747
Diseases of the urinary system, .	31	26	33	30	48	33.6	168
Diseases of the generative system,	31	26	27	32	59	35.0	175
Diseases and conditions un- classified, }	217	210	190	245	397	251.8	1,259
Violent causes,	218	183	198	218	194	202.2	1,011
Unknown causes,	68	55	34	46	76	55.8	279
Total,	3,408	2,896	2,957	3,381	3,519	3,232.2	16,161

BURGH FOR 1877.

			Mean Weekly Temperature	
1/10	1/15	1/20	19.0°	6 Days ending Jan'y 6
			25.1°	Week ending " 13
			32.5°	" " " 20



TABLE No. XI. CONSOLIDATED ABSTRACT OF DEATHS IN PITTSBURGH FROM ALL CAUSES,
Registered for the Twelve Months ending December 31, 1877.

CAUSES OF DEATH.	NATIVITY.						AGE.												Total, both sexes.	Percentage of each cause on total.				
	UNITED STATES.						FOREIGN.																	
	White.						Black.																	
	M	F	M	F	M	F	M	F	M	F	M	F												
General Diseases, (A.)																								
Measles,	18	17	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21	18	39	1.14
Scarlet fever,	41	53	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42	53	95	2.79
Enteric fever,	20	17	2	2	22	8	...	...	...	...	...	...	...	...	...	...	...	...	44	27	71	2.08
Cerebro-spinal fever,	1	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4	0.12
Diphtheria,	173	214	5	1	2	6	...	...	...	...	...	...	...	...	...	...	...	...	180	221	401	11.77
Whooping cough,	59	71	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	62	73	135	3.96
Small-pox,	122	93	13	3	21	17	37	38	71	43	19	31	15	11	3	1	...	...	156	113	269	7.89
Pyæmia,	2	1	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	4	2	6	0.18
Erysipelas,	4	6	...	...	...	1	1	6	2	1	...	...	...	...	...	...	...	...	5	7	12	0.35
Intermittent fever, . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	0.06
Remittent fever,	2	...	1	1	4	1	5	0.15	
Puerperal fever, . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	0.09
Choleraic diarrhea,	39	45	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39	46	85	2.49
Simple cholera,	5	...	...	...	...	6	2	1	2	...	...	...	...	...	...	...	...	...	11	2	13	0.38
Influenza,	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	0.03
Total,	487	522	29	11	54	38	138	226	343	236	54	74	28	18	12	9	1	2	570	571	1,141	33.48		
General Diseases, (B.)																								
Cancer, not stated,	3	...	1	1	1	4	5	0.15		
" of face,	1	...	1	0.03		
" of mouth,	1	...	1	0.03		
" of tongue,	1	1	1	2	0.06		

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TABLE No. XI. CONSOLIDATED ABSTRACT OF DEATHS IN PITTSBURGH FROM ALL CAUSES,
Registered for the Twelve Months ending December 31, 1877.

CAUSES OF DEATH.	NATIVITY.						AGE.												Total, by sexes.	Percentage of each cause on total.				
	UNITED STATES.						Under one year.	1	2	5	10	20	30	40	50	60	70	80			90			
	White.		Black.		FOREIGN.																			
	M	F	M	F	M	F																		
	M	F	M	F	M	F																		
General Diseases, (A.)																								
Measles.	18	17	3	1	...	...	5	15	15	4	...	...	...	...	...	...	...	...	...	21	18	39	1.14
Scarlet fever.	41	53	1	...	...	...	7	17	47	20	2	2	...	...	...	...	...	...	...	42	53	95	2.79
Enteric fever.	20	17	2	2	22	8	...	...	1	5	15	31	7	3	5	4	...	...	...	44	27	71	2.08
Cerebro-spinal fever.	1	1	...	...	...	2	...	...	...	...	1	2	...	...	1	...	...	...	...	1	3	4	0.12
Diphtheria.	173	214	5	1	2	6	9	47	165	160	16	4	...	...	...	...	...	...	...	180	221	401	11.77
Whooping cough.	59	71	3	2	...	...	55	45	33	2	...	...	...	...	...	...	...	...	...	62	73	135	3.96
Small-pox.	122	93	13	3	21	17	37	38	71	43	19	31	15	11	3	1	...	...	...	156	113	269	7.89
Pyemia.	2	1	1	...	1	1	...	...	2	1	...	1	1	2	...	...	...	...	...	4	2	6	0.18
Erysipelas.	4	6	...	...	...	...	1	6	2	1	...	...	...	...	1	2	...	...	...	5	7	12	0.35
Intermittent fever.	...	2	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2	2	0.06
Remittent fever.	2	...	1	...	1	1	...	...	...	2	...	...	2	...	1	...	...	...	...	4	1	5	0.15
Puerperal fever.	...	2	...	1	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	3	3	0.09
Choleraic diarrhea.	39	45	...	1	...	...	18	60	7	...	...	...	...	...	...	...	...	...	...	39	46	85	2.49
Simple cholera.	5	...	...	...	...	6	2	1	2	...	...	2	1	1	1	2	1	2	...	11	2	13	0.38
Influenza.	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	0.03
Total.	487	522	29	11	54	38	138	226	343	236	54	74	28	18	12	9	1	2	...	570	571	1,141	33.48	
General Diseases, (B.)																								
Cancer, not stated.	...	...	...	1	1	...	...	...	1	...	...	...	...	...	1	2	1	...	...	1	4	5	0.15
" of face.	1	1	1	...	1	0.03
" of mouth.	1	1	1	...	1	0.03
" of tongue.	...	1	1	1	1	1	1	2	0.06

Consolidated Abstract of Deaths in Pittsburgh, etc.—Continued.

CAUSES OF DEATH.	NATIVITY.						AGE.												Total, by sexes.	Percentage of each cause on total.			
	UNITED STATES.				FOREIGN.		Under one year.	1	2	5	10	20	30	40	50	60	70	80			90		
	White.		Black.		M	F																	
	M	F	M	F																			
General Diseases, (B).—Continued.																							
Cancer of throat,	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	
“ neck,	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
“ breast,	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
“ stomach,	...	2	...	...	...	4	2	...	...	...	...	...	...	...	1	2	3	...	...	...	...	...
“ liver,	...	1	...	...	...	4	1	...	...	...	...	...	...	...	1	2	1	2	...	...	...	...
“ mesentery,	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
“ cæcum,	2	...	...	...	...	...	...
“ intestines,	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
“ kidneys,	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
“ uterus,	...	8	...	...	...	...	1	...	...	...	...	...	...	...	5	1	2	1	...	...	...	...
Rheumatism,	...	3	1	1	...	...	1	1	...	...	...	3	1	...	...	2	1	...	...	...	...	...
Scrofula,	...	8	6	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tubercular meningitis,	...	13	7	...	...	...	2	5	7	5	1	3	1	...	...	...	...	...	...	...	...	...
Miliary tuberculosis,	...	6	16	4	1	10	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis pulmonalis,	...	47	79	5	8	69	41	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes mesenterica,	...	30	35	3	1	...	...	38	17	11	2	1	...	...	...	...	...	...	...	...	...	...
Rickets,	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis, acquired,	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
“ congenital,	...	3	1	1	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Purpura hemorrhagic,	
Pelvic abscess,	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dropsy,	...	1	1	...	...	5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total,	112	166	15	12	103	63	52	28	25	12	39	87	90	53	40	23	22	230	241	471
																							13.82

Consolidated Abstract of Deaths in Pittsburgh, etc.—Continued.

CAUSES OF DEATH.	NATIVITY.						AGE.													Total, both sexes.	Percentage of each cause on total.		
	UNITED STATES.				FOREIGN.		Under one year.	1	2	5	10	20	30	40	50	60	70	80	90				
	White.		Black.																				
	M	F	M	F	M	F																	
	M	F	M	F	M	F																	
<i>Diseases of the Circulatory System.—Continued.</i>																							
Valve disease of heart,	8	6	...	...	...	6	8	...	...	...	3	...	4	3	6	9	3	...	...	14	14	28	0.82
Hypertrophy of heart,	1	3	...	...	...	1	...	1	...	...	...	...	...	1	1	...	...	...	...	1	3	4	0.12
Dilatation of heart, . . . . .	...	1	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	2	0.06
Malformation of heart,	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	0.06
Heart disease, not stated,	6	1	...	...	...	4	3	1	...	...	2	2	3	2	1	3	...	...	...	10	4	14	0.41
Aneurism of aorta,	1	...	...	...	...	1	1	...	...	...	...	...	...	1	1	...	...	...	...	2	1	3	0.09
Cyanosis,	4	3	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	4	3	7	0.20
Heart clot, . . . . .	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	0.03
Embolism, . . . . .	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	0.03
Total,	24	20	...	...	...	14	17	12	...	1	2	10	3	9	10	14	5	...	...	38	37	75	2.20
<i>Diseases of the Respiratory System.</i>																							
Emphysema,	1	...	...	...	...	4	1	...	...	...	...	...	2	...	1	2	1	...	...	5	1	6	0.18
Asthma,	1	2	...	...	...	4	6	...	...	...	...	1	...	...	5	3	4	...	...	5	8	13	0.38
Croup,	31	30	...	...	...	...	10	14	30	7	...	...	...	...	...	...	...	...	...	31	30	61	1.79
Laryngitis,	2	6	1	...	...	...	1	1	6	...	1	...	...	...	...	...	...	...	...	3	6	9	0.26
Bronchitis,	9	11	...	...	...	3	8	9	1	2	...	1	3	1	...	7	3	4	...	12	19	31	0.91
Bronchial catarrh,	23	21	2	2	2	2	25	9	12	1	1	...	...	...	...	3	1	...	...	27	25	52	1.52
Pneumonia,	62	59	4	3	31	25	36	32	27	7	7	9	7	11	12	21	13	2	...	97	87	184	5.40
Pleurisy,	1	1	...	...	...	2	2	...	...	1	1	...	2	...	...	1	1	...	...	3	3	6	0.18
Congestion of lungs,	23	13	2	3	1	5	21	7	7	2	...	...	3	2	1	1	3	...	...	26	21	47	1.38
Pneumonic phthisis,	1	4	...	...	...	1	...	...	...	1	1	1	...	2	...	1	...	...	...	2	2	4	0.18
Atelectasis,	7	2	...	...	...	...	8	1	...	...	...	...	...	...	...	...	...	...	...	7	2	9	0.26
Hydrothorax,	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	0.03
Total,	162	149	9	8	48	49	110	65	85	19	10	15	15	16	19	36	28	7	...	219	206	425	12.47

Consolidated Abstract of Deaths in Pittsburgh, etc.—Continued.

CAUSES OF DEATH.	NATIVITY.						AGE.											Total, both sexes.		Percentage of each cause on total.	
	UNITED STATES.				FOREIGN.		Under one year.	1	2	5	10	20	30	40	50	60	70	80	90		
	White.		Black.		M.	F.															
	M.	F.	M.	F.																	
<i>Diseases of the Digestive System.</i>																					
Teething,	25	25	2	...	...	...	20	31	1	...	...	...	...	...	...	...	...	...	...	27	25
Stomatitis,	6	4	...	...	...	...	8	1	1	...	...	...	...	...	...	...	...	...	...	6	4
Tonsillitis, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sore throat,	7	2	...	...	...	...	...	1	5	2	1	2	3	2	4	2	2	...	...	7	2
Gastritis,	11	3	...	...	...	...	2	5	2	1	2	3	5	1	3	2	3	6	2	13	8
Enteritis,	16	22	3	...	...	...	5	6	13	5	7	3	2	5	1	3	2	3	2	24	28
Peritonitis,	2	2	1	...	...	...	4	4	1	1	1	2	2	3	2	1	...	...	...	7	6
Obstruction of intestines, . . . . .	...	...	1	...	...	...	2	2	...	...	1	...	1	...	1	1	1	...	...	...	5
Intussusception of intestines, . . . . .	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	2
Hemorrhage of intestines,	2	3	1	...	...	...	1	5	1	...	...	...	...	...	...	...	...	1	...	3	4
Ulceration of intestines,	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Abscess of liver,	1	...	...	...	...	...	...	...	...	...	...	1	1	1	2	1	2	...	...	5	...
Enlargement of liver,	3	...	...	...	...	...	2	...	...	...	...	1	...	1	1	3	...	...	...	5	...
Cirrhosis of liver, . . . . .	...	...	...	...	...	...	2	3	...	...	...	...	4	1	1	...	...	...	...	2	3
Disease of liver, not stated,	1	...	...	...	...	...	3	1	...	...	...	...	...	4	1	1	1	...	...	4	1
Hepatitis,	2	...	...	...	...	...	1	2	...	...	...	1	...	2	1	1	1	...	...	3	2
Jaundice, . . . . .	...	...	...	...	...	...	2	1	...	...	...	...	...	1	1	1	2	...	...	2	4
Gall stone,	1	1	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	1	1
Diarrhea,	72	58	1	3	6	5	103	20	5	...	...	1	3	1	1	4	4	3	...	79	66
Dysentery,	9	10	...	1	8	9	7	3	4	1	4	3	5	5	3	1	1	...	...	17	20
Imperforate anus, . . . . .	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Femoral hernia, . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...
Indigestion, . . . . .	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Total,	159	138	9	5	39	42	163	62	28	8	6	17	16	27	15	24	19	7	...	207	185
																					11.50

Consolidated Abstract of Deaths in Pittsburgh, etc.—Continued.

CAUSES OF DEATH.	NATIVITY.						AGE.												Total, by sexes.	Percentage of each cause on total.			
	UNITED STATES.				FOREIGN.		Under one year.	1	2	5	10	20	30	40	50	60	70	80			90		
	White.		Black.		M	F																	
	M	F	M	F																			
<i>Diseases of the Urinary System.</i>																							
Acute Bright's disease,	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	2	0.06
Chronic Bright's disease,	8	1	1	..	9	2	..	..	..	..	..	6	3	2	4	3	3	..	..	18	3	0.61
Nephritis, . . . . .	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	0.03
Diabetes, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.03
Abscess of kidney, . . . . .	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	0.03
Chronic cystitis,	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	3	..	..	3	3	0.09
Hematuria, . . . . .	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	0.03
Suppression of urine, . . . . .	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	0.03
Total,	10	3	1	1	14	2	1	1	1	6	5	2	5	3	7	25	6	31	0.91
<i>Diseases of the Generative System.</i>																							
Abortion, . . . . .	..	..	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	0.06
Metritis, . . . . .	..	..	..	..	..	7	..	..	..	..	..	1	5	1	..	..	..	..	..	..	7	0.19
Placenta previa, . . . . .	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	0.06
Puerperal hemorrhage, . . . . .	..	1	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2	0.06
Puerperal peritonitis,	2	..	..	..	..	4	..	..	..	..	1	2	2	1	..	..	..	..	..	..	6	0.18
Puerperal convulsions,	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	0.06
Phlegmasia dolens, . . . . .	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	0.03
Parturition, . . . . .	..	..	..	..	..	3	..	..	..	..	..	1	1	1	..	..	..	..	..	..	3	0.09
Rupture of uterus, . . . . .	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	0.03
Ovarian tumor, . . . . .	..	2	..	..	..	3	..	..	..	..	..	1	1	1	1	..	1	..	..	..	5	0.15
Total, . . . . .	..	10	..	..	..	21	..	..	..	..	2	9	12	6	1	..	1	..	..	..	31	0.91

Consolidated Abstract of Deaths in Pittsburgh, etc.—Continued.

CAUSES OF DEATH.	NATIVITY.						AGE.													Total, by sexes.		Percentage of each cause on total.
	UNITED STATES.				FOREIGN.		Under one year.	1	2	5	10	20	30	40	50	60	70	80	90			
	White.		Black.		M	F																
	M	F	M	F																		
<i>Violent Causes.—Continued.</i>																						
Kicked by mule,	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	0.03
Fracture of skull,	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	3	0.09
Fracture of femur,	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	0.03
Railroad accident,	14	1	1	...	...	...	...	...	...	3	2	10	6	3	3	3	...	...	...	29	0.87
Street car accident,	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	0.03
Street accident,	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	0.03
Run over by vehicles,	2	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	3	0.09
Gun-shot, . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	0.06
Gun-shot, (Riot of July 21 & 22,)	15	...	...	...	...	...	...	...	...	...	4	8	10	1	1	...	...	...	...	24	0.70
Surgical operation, not stated,	1	1	1	0.03
Amputation at hip joint, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	0.03
Excision of femur, . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	0.06
Strangulated hernia, (operation,) . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	0.06
Ovariotomy, . . . . .	...	3	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	4	0.12
Total,	87	32	5	2	84	8	15	4	14	19	18	48	41	26	19	10	3	1	...	176	6.40	
Unknown,	25	31	4	...	4	4	37	9	5	3	2	1	3	6	...	2	...	...	...	33	1.99
Total deaths from all causes,	1,270	1,277	84	50	427	300	793	430	535	320	152	275	231	179	139	156	142	51	5	1,781	100.00	

There occurred during the year 3,408 deaths, a weekly average of 65. 1,781 were males, and 1,627 females. 2,198 were born in Pittsburgh, and 469 in other parts of the United States, making of native born, a total of 2,667. Of this number 134 were black; 727 were born in foreign countries, and the nativity of 14 of the decedents were not stated on the certificates of death. The annexed statement exhibits the nativity of the decedents.

Pittsburgh,	2,198	Germany,	271
Other parts U. S.,	469	Holland,	1
Canada,	3	Switzerland,	5
New Brunswick,	1	Italy,	5
England,	54	Poland,	2
Ireland,	325	Russia,	2
Scotland,	11	Other foreigners,	4
Wales,	22	Not stated,	14
France,	21	Total,	3,408

SOCIAL CONDITION.

Single,	2,495	Widowers,	32
Married,	769	Not stated,	5
Widows,	107	Total,	3,408

LOCATION.

City Wards, (see Table No. XIII),	3,202	Homœopathic Hospital,	11
Municipal Hospital,	53	Orphan Asylum,	13
Western Pennsylvania Hospital,	39	County Jail,	2
St. Franciscus Hospital,	35	U. S. Arsenal,	2
Pittsburgh Infirmary,	26	Total,	3,408
Mercy Hospital,	25		

793 of the decedents were infants under one year of age, and 965 were children between the age of one and five years; of the whole number of decedents, more than one-half (1,758) died before attaining the fifth anniversary of their birth. These figures represent 51.29 per cent. of the total mortality.

Estimating the population at 145,000, the death rate was equivalent to $23\frac{1}{2}$ in each one thousand inhabitants, a decided increase as compared with the previous year.

OBSERVATIONS ON THE PRINCIPAL CAUSES OF DEATH.

General Diseases (A).

Infectious diseases caused a total of 1,141 deaths, making 33.48 per cent. of the total mortality from all causes, against 20.51 per cent. for the previous year. This excessive mortality was due to the increased prevalence of diphtheria, smallpox and whooping-cough.

The diseases of this class caused a native mortality of 1,049, of which number 40 were black. The mortality of persons of foreign birth was 92: 138 were infants under one year, and 569 were children between the ages of one and five years; making considerably over one-half (62 per cent.) of the total.

The annexed statement shows that infectious diseases are markedly fatal to children and those in the prime of life.

AGE.	No. of decedents from infectious diseases.	No. of decedents from all other causes.
Under one year,	138	655
One to two years,	226	204
Two to five years,	343	192
Five to ten years,	236	84
Under ten years,	943	1,135
Ten to twenty years,	54	98
Twenty to thirty years,	74	201
Thirty to forty years,	28	203
Forty to fifty years,	18	161
Fifty to sixty years,	12	127
Sixty to seventy years,	9	147
Seventy to eighty years,	1	141
Eighty to ninety years,	2	49
Ninety to one hundred years, . . . . .	.....	5
Total,	1,141	2,267

The following table exhibits the number of deaths caused by infectious diseases during the year 1877, contrasted with the preceding four years. It will be observed that one-third of the total mortality was caused by preventable diseases.

TABLE No. XII.

	1877.	1876.	1875.	1874.	1873.
Small-pox,	269	86	29	..	25
Measles,	39	37	15	71	47
Scarlet fever,	95	93	208	313	122
Typhoid fever,	71	84	121	149	194
Cerebro-spinal fever,	4	2	20	18	103
Remittent fever,	7	8	8	6	6
Diphtheria,	401	77	64	53	73
Whooping cough,	136	24	55	79	57
Simple cholera,	13	11	12	30	17
Choleraic diarrhea,	85	144	208	241	256
Erysipelas,	12	14	15	16	30
Puerperal fever,	3	6	13	13	14
Pyemia,	6	8	2	7	9
Total,	1,141	594	770	966	946
Per cent. of total mortality,	33.48	20.51	26.04	29.46	26.88

Table No. XIII exhibits the location of the mortality from infectious diseases, as also the percentage in each on the total mortality. The Twenty-seventh, Twenty-ninth and Thirty-third wards show a mortality of over fifty per cent.; the Twenty-sixth, Thirtieth, Thirty-fifth, Twenty-eighth and Thirty-second wards show a mortality of over forty per cent., while eleven other wards show a mortality of over thirty per cent.

TABLE No. XIII.

Deaths from General Diseases (A) Registered during the Twelve Months ending December 31st, 1877.

WARDS.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid Fever.	Choleraic Diarrhoea.	All other diseases included in Class A.	Total deaths from diseases included in Class A.	Total deaths from all causes.	Percentage of Deaths from diseases comprised in Class A on total mortality.
First,	4	1	3	4	6	2	2	1	23	111	20.7
Second,	1	...	1	3	...	2	1	1	9	54	16.7
Third,	2	2	1	3	2	1	2	2	15	57	26.0
Fourth,	2	...	2	1	...	4	1	1	11	49	22.4
Fifth,	2	1	7	2	...	7	3	1	23	97	23.7
Sixth,	6	3	11	9	1	3	7	5	45	135	33.3
Seventh,	5	4	5	4	4	1	2	1	26	101	25.7
Eighth,	2	2	2	3	2	2	2	2	17	83	20.5
Ninth,	16	2	...	13	4	1	1	3	40	117	34.2
Tenth,	11	1	...	5	2	3	1	1	24	79	30.4
Eleventh,	4	2	1	25	6	1	...	3	42	126	33.3
Twelfth,	9	2	8	6	9	1	3	2	40	167	24.0
Thirteenth,	5	1	6	12	5	2	6	1	38	106	35.8
Fourteenth,	4	5	2	19	2	2	2	1	37	133	27.8
Fifteenth,	13	2	1	8	8	3	3	...	38	104	36.5
Sixteenth,	8	2	3	5	5	3	3	1	30	124	24.2
Seventeenth,	9	4	6	1	10	4	3	1	38	145	26.2
Eighteenth,	1	1	...	2	4	...	2	1	11	42	26.2
Nineteenth, . . . . .	...	1	...	1	...	1	2	1	6	45	13.3
Twentieth, . . . . .	...	...	...	2	...	1	1	1	5	49	10.2
Twenty-first,	2	...	2	3	1	2	2	1	13	75	17.3
Twenty-second,	1	...	...	5	...	1	...	1	8	24	33.3
Twenty-third, . . . . .	...	...	1	...	1	...	1	...	3	25	12.0
Twenty-fourth,	1	...	4	19	3	1	1	...	29	89	32.6
Twenty-fifth,	1	...	3	25	...	1	2	...	32	96	33.3
Twenty-sixth,	25	...	7	45	10	3	8	2	109	201	49.8
Twenty-seventh,	19	...	2	44	7	...	3	3	78	137	56.9
Twenty-eighth,	16	...	1	25	5	2	3	3	55	131	42.0
Twenty-ninth,	23	...	3	42	4	1	1	1	75	134	56.0
Thirtieth,	6	...	5	19	6	2	...	...	38	79	48.1
Thirty-first,	1	...	1	6	...	...	4	...	12	33	36.4
Thirty-second,	1	...	...	23	4	2	2	...	32	78	41.0
Thirty-third,	1	1	...	12	3	1	3	1	22	43	51.2
Thirty-fourth, . . . . .	...	1	2	1	8	1	6	1	20	61	32.8
Thirty-fifth, . . . . .	...	...	1	4	3	...	1	...	9	19	47.4
Thirty-sixth, . . . . .	...	...	4	...	8	1	1	...	14	53	26.4
Total,	201	38	95	401	133	62	85	43	1,058	3,202	33.0
Hospitals and Institutions	68	1	...	...	2	9	...	3	83	206	40.3
Total,	269	39	95	401	135	71	85	46	1,141	3,408	33.5

The annexed statement shows the monthly number of deaths from typhoid fever during the past five years. It will be observed that this disease exhibits a steady annual decrease since 1873. June, July and February, in the order named, show the lowest, and October the highest mortality.

TYPHOID FEVER.

MONTHS.	1877.	1876.	1875.	1874.	1873.	5 Years' Aggregate.
January,	5	11	13	15	9	53
February,	3	5	5	15	9	37
March, . . . . .	..	9	12	15	7	43
April,	6	13	4	5	16	44
May,	4	4	8	3	34	53
June,	2	4	4	2	15	27
July,	4	..	6	7	15	32
August,	6	8	12	11	28	65
September,	8	11	18	9	18	64
October,	15	7	20	30	18	90
November,	9	7	12	12	15	55
December,	9	5	6	25	7	52
Total,	71	84	120	149	191	615

The annexed statement exhibits the monthly number of deaths from consumption during the past five years. The month of September shows the lowest and April the highest mortality.

CONSUMPTION.

MONTHS.	1877.	1876.	1875.	1874.	1873.	5 Years' Aggregate.
January,	23	21	31	33	26	134
February,	31	28	30	22	24	135
March,	26	44	39	27	27	163
April,	27	33	39	40	36	175
May,	28	33	33	39	25	158
June,	31	31	26	24	27	139
July,	21	26	23	21	34	125
August,	26	25	28	22	24	125
September,	19	17	25	24	22	107
October,	22	25	24	26	27	124
November,	20	30	18	25	31	124
December,	27	28	29	28	23	135
Total,	301	341	345	331	326	1,644

STILL BIRTHS.

The number of dead-born infants reported during the year was 236. The annexed statement shows the number of cases in which the cause of the dead-birth was stated by the attendant. The exhibit is creditable when we remember that a large majority of the whole number were attended by mid-wives.

CAUSES AFFECTING THE MOTHER.

Difficult and protracted labor,	17
Illness of mother, (not stated,)	8
Syphilis,	8
Small-pox,	4
Deformed pelvis,	8
Fright,	5
Injury to mother, (not stated,)	5
Over exertion of mother,	3
Uterine disease, (not stated,)	4
Endometritis,	1
Complicated labor,	1
Uterine hemorrhage,	1
Total,	65

CAUSES AFFECTING THE FÆTUS.

Prolapsus of cord,	9
Malpresentation, (not stated,)	5
Breech presentation,	6
Arm presentation,	3
Shoulder presentation,	2
Hydrocephalus,	3
Placenta previa,	6
Degeneration of placenta,	1
Malformation, (not stated,)	3
Total,	38

Return of Still Births, showing the Sex and period of Utero-gestation, Registered during the Twelve Months ending December 31st, 1877.

MONTHS.	Total.	SEX.			PERIOD OF UTERO-GESTATION.									
		Males.	Females.	Not stated.	2d Month.	3d Month.	4th Month.	5th Month.	6th Month.	7th Month.	8th Month.	9th Month.	Not stated.	
January,	23	12	10	1	...	...	...	1	...	3	...	3	16
February,	22	12	9	1	...	1	...	1	2	...	1	1	16	
March,	21	10	11	...	...	...	...	1	...	...	1	10	9
April,	10	5	4	1	...	...	1	...	...	...	2	...	7
May,	23	15	7	1	...	...	1	...	...	2	...	3	17
June,	21	13	7	1	...	1	...	1	1	...	1	4	13	
July,	23	15	7	1	...	...	...	...	3	...	...	2	18
August,	19	8	9	2	1	...	...	1	...	1	1	5	10
September,	23	13	10	...	...	1	...	...	...	2	3	3	14
October,	16	8	7	1	...	...	...	...	...	1	1	3	11
November,	10	4	6	...	...	...	...	...	...	...	1	3	6
December,	25	16	8	1	...	1	...	...	...	2	2	6	14
Total,	236	131	95	10	1	4	2	5	6	11	13	43	151	

A comparison of the mortality of important cities is exhibited in the following table.

1877.	Estimated Population.	Deaths under five years.	Total number of deaths.	Death rate per 1000.
New York,	1,069,362	12,307	26,203	24.50
Philadelphia,	850,856	6,417	16,004	18.81
Brooklyn,	527,830	5,560	11,362	21.53
Chicago,	450,000	4,512	8,026	17.84
Boston,	363,000	2,995	7,316	20.15
Baltimore,	360,000	4,034	7,936	22.04
San Francisco,	300,000	2,018	5,505	18.35
Cincinnati,	280,000	1,807	4,428	15.81
New Orleans,	203,439	2,106	6,708	32.97
Hudson County, N. J.,	180,000	2,008	3,937	21.87
Cleveland,	162,000	1,249	2,903	17.92
Pittsburgh,	145,000	1,758	3,408	23.50
Milwaukee,	122,980	1,244	2,072	16.85
Providence,	103,000	724	1,938	18.81
Richmond,	77,500	738	1,649	21.28
Mobile,	40,000	327	935	23.37

Respectfully submitted,

W. SNIVELY,

Registrar.

REPORT OF REGISTRATION CLERK.

OFFICE OF THE BOARD OF HEALTH,
PITTSBURGH, January, 1878.

W. SNIVELY, M. D.,

Registrar of Vital Statistics :

SIR—I have the honor to present to you my annual report relative to the returns of Births and Marriages in the city of Pittsburgh for the year ending December 31st, 1877.

BIRTHS.

The number of living infants born in the city, whose births have been recorded in this office during the past year, were four thousand two hundred and fifteen, being a decrease of forty-nine, as compared with the record of the previous year—in fact, by comparing the records of the last year with those of the five preceding ones, we find a gradual decrease in the number of births in that time—the records of 1873 show five thousand one hundred and seventy-five, while this year has but four thousand two hundred and fifteen, showing a diminution of nine hundred and sixty, although the general population of the city has no doubt been steadily increasing. It is not within the province of this report to try to solve or even suggest a cause for this undeniable discrepancy in the natural increase of the population of the city, but merely call attention to the fact that such has been the case.

Estimating the population of the city at 145,000, the birth rate per 1,000 inhabitants was 29.07.

The number of births in the city, by months, for the year 1877, is shown in the following statement:

MONTHS.	White Males.	White Females.	Colored Males.	Colored Females.	Total Whites.	Total Blacks.	Total.
January,	180	190	1	5	370	6	376
February,	175	168	4	2	343	6	349
March,	187	165	8	9	352	17	369
April,	146	141	1	1	287	2	289
May,	171	141	4	2	312	6	318
June,	176	134	4	2	310	6	316
July,	209	174	4	1	383	5	388
August,	190	180	3	...	370	3	373
September,	197	184	3	4	381	7	388
October,	156	170	1	1	326	2	328
November,	164	172	1	...	336	1	337
December,	207	172	4	1	379	5	384
Total,	2,158	1,991	38	28	4,149	66	4,215

Eighteen pairs of white twins, one pair of colored twins, and one set of triplets, were reported during the year.

Births and percentages, by wards, (still births not included), is shown in the following table:

WARDS.	1876.		1877.	
	Births.	Per cent.	Births.	Per cent.
First,	86	2.02	112	2.66
Second,	59	1.38	43	1.02
Third,	74	1.74	75	1.78
Fourth,	59	1.38	68	1.61
Fifth,	114	2.67	139	3.30
Sixth,	241	5.65	212	5.03
Seventh,	126	2.95	133	3.16
Eighth,	136	3.19	130	3.08
Ninth,	98	2.29	83	1.96
Tenth,	66	1.55	60	1.42
Eleventh,	166	3.89	192	4.56
Twelfth,	280	6.57	212	5.03
Thirteenth,	120	2.81	98	2.33
Fourteenth,	180	4.22	214	5.05
Fifteenth,	133	3.12	164	3.89
Sixteenth,	182	4.32	182	4.32
Seventeenth,	249	5.84	264	6.28
Eighteenth,	65	1.52	64	1.52
Nineteenth,	122	2.86	138	3.27
Twentieth,	102	2.39	87	2.06
Twenty-first,	154	3.61	181	4.29
Twenty-second,	28	0.46	24	0.57
Twenty-third,	14	0.33	15	0.36
Twenty-fourth,	76	1.78	73	1.73
Twenty-fifth,	169	3.96	117	2.78
Twenty-sixth,	251	5.98	298	7.07
Twenty-seventh,	131	3.17	131	3.11
Twenty-eighth,	131	3.17	131	3.11
Twenty-ninth,	106	2.48	95	2.25
Thirtieth,	64	1.50	66	1.57
Thirty-first,	79	1.85	59	1.40
Thirty-second,	112	2.62	102	2.42
Thirty-third,	40	0.93	29	0.69
Thirty-fourth,	57	1.33	58	1.38
Thirty-fifth,	54	1.26	37	0.88
Thirty-sixth,	97	2.27	97	2.30
Public institutions,	43	1.00	32	0.76
Total,	4,264	100.00	4,215	100.00

MARRIAGES.

During the year 1877, one thousand one hundred and ten marriages were registered in this office, being a decrease of eight, as compared with the previous year, and eighty-two as compared with the year 1875.

By referring to the last table in this report, you will notice (as in births) a gradual decrease in the number of marriages solemnized in this city since 1873. In 1872 one thousand one hundred and forty-three marriages were performed, and in 1873 one thousand seven hundred and eighty-two, showing an increase of six hundred and thirty-nine in one year; this increase was principally due to the annexation by the city at that time of a considerable amount of adjacent territory, while the gradual decrease since 1873 (being the year of the panic) can be easily accounted for, by the diminution of wages, the lack of employment and general stagnation of business, which beyond a doubt has had a tendency to reduce the number of marriages, not only in the city but in the whole country.

The following statement shows the aggregate, average and number, by months, for the year 1877, with the corresponding figures for the four preceding years, 1873-4-5-6.

MARRIAGES.

	1877.	1876.	1875.	1874.	1873.	5 years' aggregate.	5 years' average.
January, . .	88	105	103	121	164	581	116
February, . .	101	96	77	127	143	544	109
March, . . .	65	89	92	90	91	427	86
April,	126	99	108	154	164	651	130
May,	110	110	100	135	184	639	128
June,	85	109	121	120	153	588	118
July,	82	68	94	120	185	549	109
August,	62	84	95	116	117	474	95
September, . .	94	93	125	157	171	640	128
October, . . .	100	103	107	138	172	620	123
November, . .	109	88	94	136	133	560	112
December, . .	88	74	86	119	105	472	95
Total, . . .	1,110	1,118	1,202	1,533	1,782	6,745	1,349

The following statement will show the age of persons married during the year 1877:

AGES.

YEARS.	Grooms.	Brides.
15 to 20,	77	399
20 to 25,	464	478
25 to 30,	337	135
30 to 35,	108	41
35 to 40,	62	26
40 to 45,	24	20
45 to 50,	14	9
50 to 55,	8	...
55 to 60,	9	...
60 to 65,	4	1
65 to 70,	1	...
70 to 75,	1	...
Not given,	1	1
Total,	1,110	1,110

The following statement will show the nativity of persons married during the year 1877.

	Males.	Females.
Pittsburgh,	248	373
Other parts of U. S.,	437	421
Ireland,	160	134
Germany,	147	85
England,	47	48
Scotland,	14	12
Wales,	13	19
Canada,	7	4
Italy,	6	3
France,	7	1
Bavaria,	8	4
Prince Edwards Island,	1	1
Not given,	15	5
Total,	1,110	1,110

The following statement shows the various ceremonies employed during the year 1877:

Catholic,	344
Methodist,	218
Civil,	175
Presbyterian,	158
Lutheran,	66
Episcopal,	36
German Evangelical,	78
Baptist,	13
Church of God,	2
Congregational,	2
United Protestant,	3
Hebrew,	1
German Protestant,	4
German Reformed,	6
Evangelical Association,	2
Ecclesiastical,	2
Total,	1,110

The following table shows the number of marriages, births and deaths, which have been recorded in this department since its organization:

YEARS.	Marriages.	Births.	Deaths.
1852, (six months) . . . . .	...	...	365
1853, . . . . .	...	...	898
1854, . . . . .	...	...	1,831
1855, . . . . .	...	...	1,000
1856, . . . . .	...	...	815
1857, . . . . .	...	...	943
1858, . . . . .	...	...	888
1859, . . . . .	...	...	820
1860, . . . . .	...	...	860
1861, . . . . .	...	...	948
1862, . . . . .	...	...	1,066
1863, . . . . .	...	...	998
1864, . . . . .	...	...	1,162
1865, . . . . .	...	...	999
1866, . . . . .	...	...	1,070
1867, . . . . .	...	...	1,042
1868, . . . . .	...	...	1,233
1869, . . . . .	...	...	1,477
1870, (new registration act,)	(6 mos.) 562	(6 mos.) 1,750	1,867
1871,	1,059	2,886	2,531
1872,	1,143	3,378	2,456
1873,	1,782	5,175	3,519
1874,	1,533	5,084	3,381
1875,	1,192	4,930	2,957
1876,	1,118	4,264	2,896
1877,	1,110	4,215	3,408
Total,	9,499	29,922	41,430

Respectfully submitted,

J. GEARY LOGAN,

Registration Clerk.

REPORT OF MUNICIPAL HOSPITAL

PITTSBURGH, January, 1878.

To the Board of Health:

GENTLEMEN :

Since the opening of this institution for the reception of patients, March 18th, 1875, there have been admitted 295 cases of small-pox and 99 cases of varioloid, or modified small-pox, making a total of 394 patients treated in this hospital. Of this number 74 died, making the percentage of mortality (excluding all cases of modified small-pox) 25.08, or one death in four cases. The percentage of mortality in the city at large, for the same period, was 33.44, or one death in three cases. Excluding sanitary reasons, further arguments in favor of the removal of this class of patients to the hospital are superlative.

During the year 1877, there were admitted 187 cases of small-pox, and 56 cases of varioloid or modified small-pox, making a total of 243 patients treated. Of this number 53 died, making the percentage of mortality (excluding all cases of varioloid) 28.12. The percentage of mortality in the city at large, for the same period, was 32.26.

Of the 243 patients admitted, 56 were vaccinated ; in 53 cases the performance of the operation was doubtful, and 134 had never been vaccinated. The annexed statement exhibits the operations of the hospital for 1877 ;

MUNICIPAL HOSPITAL REPORT FOR 1877.

MONTHS.	ADMITTED.		Total.	DISCHARGED.		Remaining.
	Small-pox.	Variceloid.		Recovered.	Died.	
January,	42	9	51	16	12	23
February,	19	4	23	18	8	20
March,	13	3	16	20	2	14
April,	13	3	16	14	1	15
May,	13	2	15	14	2	14
June,	11	4	15	12	2	15
July,	11	2	13	16	5	7
August,	7	2	9	8	2	6
September,	20	9	29	12	5	18
October,	13	7	20	16	3	19
November,	11	8	19	14	6	18
December,	14	3	17	19	5	11
Total,	187	56	243	179	53	11

Respectfully submitted,

W. SNIVELY,

Physician in Charge.

REPORT OF MEAT INSPECTOR.

PITTSBURGH, January, 1878.

To the Board of Health of the City of Pittsburgh:

GENTLEMEN.—I hereby submit a statement of the operations of this office for the year ending December 31st, 1877.

SUMMARY FOR QUARTER ENDING MARCH 31st, 1877.

Condemned and confiscated Beef,	. . . . .	7,700 lbs.
" " " Veal,	. . . . .	960 "
" " " Calves,	. . . . .	22 head.

One calf was sold for cash, from which was realized, \$2.50.
One person was arrested and fined twenty-five dollars, by Mayor McCarthy, for selling impure butter.

ACCOUNT OF STOCK SHIPPED EAST FROM THE EAST LIBERTY STOCK YARDS, DURING THE QUARTER ENDING MARCH 31st, 1877.

Cattle.	Hogs.	Sheep.
68,390	141,216	143,010

ACCOUNT OF DEAD STOCK DURING THE QUARTER.

Cattle.	Hogs.	Sheep.
21	189	107.

SUMMARY FOR QUARTER ENDING JUNE 30th, 1877.

Condemned and confiscated Beef,	. . . . .	2,160 lbs.
" " " Veal,	. . . . .	550 "
" " " Corned Beef,	. . . . .	700 "
" " " Mutton,	. . . . .	300 "
" " " Fresh Fish,	. . . . .	1 bbl.
" " " Calves,	. . . . .	4 hd.
" " " Milk,	. . . . .	47 gals.

ACCOUNT OF STOCK SHIPPED EAST FROM THE EAST LIBERTY STOCK YARDS, DURING THE QUARTER ENDING JUNE 30th, 1877.

Cattle.	Hogs.	Sheep.
65,805	131,903	179,750

ACCOUNT OF DEAD STOCK DURING THE QUARTER.

Cattle.	Hogs.	Sheep.
19	687	582

SUMMARY FOR QUARTER ENDING SEPTEMBER 30th, 1877.

Condemned and confiscated Beef,	. . . . .	480 lbs.
" " " Veal,	. . . . .	450 "
" " " Fresh Fish,	. . . . .	550 "
" " " Corned Beef,	. . . . .	350 "
" " " Milk,	. . . . .	52 gals.
" " " Calves,	. . . . .	3 hd.
" " " Crippled hogs,	. . . . .	4 "
" " " Eggs,	. . . . .	2 bbls.
" " " Bullock,	. . . . .	1
" " " Melons,	. . . . .	230

**ACCOUNT OF STOCK SHIPPED EAST FROM THE EAST LIBERTY STOCK YARDS,
DURING THE QUARTER ENDING SEPT. 30th, 1877.**

Cattle.	Hogs.	Sheep.
78,380	131,286	182,100

ACCOUNT OF DEAD STOCK DURING THE QUARTER.

Cattle.	Hogs.	Sheep.
9	532	472

SUMMARY FOR QUARTER ENDING DECEMBER 31st, 1877.

Condemned and confiscated Beef,	. . . . .	475 lbs.
" " " Veal,	. . . . .	155 "
" " " Mutton,	. . . . .	125 "
" " " Sheep,	. . . . .	43 hd.
" " " Calves,	. . . . .	3 "
" " " Adulterated Milk,	. . . . .	27 gals.
" " " Hams,	. . . . .	4
" " " Poultry,	. . . . .	1,125 pairs.
" " "	a quantity of Condensed Milk.	

**ACCOUNT OF STOCK SHIPPED EAST FROM THE EAST LIBERTY STOCK YARDS,
DURING THE QUARTER ENDING DECEMBER 31st, 1877.**

Cattle.	Hogs.	Sheep.
83,892	122,321	153,304

ACCOUNT OF DEAD STOCK DURING THE QUARTER.

Cattle.	Hogs.	Sheep.
11	210	350

RECAPITULATION.

Condemned and confiscated Beef,	10,815 lbs.
“ “ “ Veal,	2,115 “
“ “ “ Mutton,	425 “
“ “ “ Fresh Fish,	850 “
“ “ “ Corned Beef,	1,050 “
“ “ “ Calves,	32 hd.
“ “ “ Crippled Hogs,	4 “
“ “ “ Bullock,	1 “
“ “ “ Sheep,	43 “
“ “ “ Adulterated Milk,	126 gals.
“ “ “ Spoiled Eggs,	2 bbls.
“ “ “ Hams,	4
“ “ “ Melons,	230
“ “ “ Poultry,	1,125 pairs.
“ “ “ a quantity of spoiled Condensed Milk.	

STOCK SHIPPED EAST DURING THE YEAR.

Cattle.	Hogs.	Sheep.
296,467	526,726	658,164

ACCOUNT OF DEAD STOCK.

Cattle.	Hogs.	Sheep.
60	1,668	1,511

The following carefully compiled statement will show the quantity and estimated cost of fresh meats sold and consumed in the city during the year ending December 31st, 1877, and its relation to the amount sold and consumed in 1871:

Amount consumed and sold in 1877,	34,820,192 lbs.	
At an average cost of 13 cts. per lb.,		\$4,526,624 96
Amount consumed and sold in 1871,	28,267,356 lbs.	
At an average cost of 13 cts. per lb.,		3,674,756 28
Showing an increase over 1871 of	6,552,836 lbs.	
And at the same average cost an increase of		\$851,868 68

Respectfully submitted,

THOS. W. LINDSAY,
Meat Inspector.

ATTORNEY'S REPORT.

PITTSBURGH, January, 1878.

To the Board of Health of the City of Pittsburgh:

GENTLEMEN.—As attorney for your Board, I submit the following brief report for the year ending Dec. 31st, 1877:

The whole number of suits brought during the year was twenty-eight, in twenty-three of which judgment was rendered in favor of the Board for penalty and costs, in four for costs simply, and in the remaining one judgment was given in favor of defendant. Of the cases formerly appealed and pending in court, two only have been tried since my last report.

There has been nothing unusual connected with the legal business of the Board since last year—nothing that requires comment or elaboration.

Respectfully submitted,

H. H. McCORMICK,
Attorney.

TREASURER'S REPORT.

PITTSBURGH, February, 1878.

To the Board of Health:

GENTLEMEN.—I have the honor to submit the following statement of the receipts and disbursements of this department during the fiscal year ending January 31st, 1878:

RECEIPTS.

Balance on hand February 1st 1877, \$	959 18
Appropriation by City Councils, . .	12,000 00
Office receipts per Health Officer, . .	<u>1,532 00</u>

\$14,491 18

EXPENDITURES.

SALARIES.

Health Officer,	1,337 50
Physician and Registrar,	891 66
Attorney,	300 00
Meat Inspector,	1,605 00
Registration Clerk,	802 50
Sanitary Inspectors,	2,139 98
Assistant "	<u>800 00</u>
	\$7,876 64

HOSPITAL EXPENSES.

Outstanding bills,	552 31
Removing patients,	216 00
Nurse hire,	803 25
Groceries and produce,	1,162 63
Medicines and liquor,	164 00
Milk,	128 90
Beds and bedding,	160 40
Hauling water,	247 60
Furniture,	54 00
Fuel,	8 58
Repairs,	137 08
Emptying tanks,	47 50
Interments,	308 00
Hauling,	17 90
Repairing ambulance,	23 20
Labor,	19 50
Miscellaneous bills,	<u>45 71</u>
	\$4,096 56

GENERAL EXPENSES.

Outstanding bills,	116 76	
Removing dead animals,	478 50	
Printing and stationery,	704 33	
Pay of Vaccine physicians,	481 00	
Advertising,	12 00	
Subscription daily papers,	8 00	
Destroying infected bedding, &c.,	40 00	
Abating nuisance,	8 00	
Office expenses,	105 90	
Vaccine virus,	75 00	
Analysis of milk,	20 00	
Miscellaneous bills,	24 50	
		\$2,073 99
Total,		\$14,047 19
Balance on hand,		\$ 443 99

Respectfully submitted,

ADDISON ARTHURS,
Treasurer.

To the Board of Health:

GENTLEMEN.—Your Finance Committee, to whom was referred the foregoing statement, would respectfully report, that they have examined the same and find it to be correct.

We also find the following liabilities to the end of the fiscal year due and unpaid, viz:

Outstanding warrants,	\$ 454 80	
Outstanding bills,	585 48	
Salaries,	1,027 59	
Total,		\$2,067 87
Deduct balance on hand,		443 99
Deficiency,		\$ 1,623 88

Respectfully submitted,

J. F. SLAGLE,
J. D. THOMAS,
JARED M. BRUSH,
Finance Committee.

PITTSBURGH, February, 1878.

PAY. JAN. 87, 12008

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